

SUPERVISOR'S GUIDE TO SAFETY AND ENVIRONMENTAL TRAINING

1. INTRODUCTION

This guidebook is designed to assist supervisors at the Goddard Space Flight Center in determining training needs in the areas of health, safety, and environment for both themselves and their employees. Training will help to protect the health of employees, increase safety in and around the workplace, and improve the quality of the environment for the present and into the future. Training can ensure compliance with regulations as well as other workplace requirements.

We must provide employee's with the skills and knowledge necessary for them to effectively perform their work.

Central to a successful Safety and Environmental Program is the ability for supervisors and their employees to identify and understand the hazards to which they may be exposed, and be able to know how to prevent harm to themselves, coworkers, and the environment. Education, along with continued and regular training, is an integral part of each supervisor's and employee's professional job requirements. Regular training will provide the knowledge necessary to meet regulatory requirements and establish best management practices for safety and the environment.

Each supervisor will conduct a job hazard analysis for each employee, and from this an Individualized Training Plan will be developed for each employee and for each division as a whole.

This guide provides GSFC supervisors and their employees with information on what training is required by regulations and recommended by the Safety and Environmental Branch, OSHA, and EPA. Specifically, this guide provides the following:

- How to Use This Guide (Section 2, page 1);
- Individualized Plan for Safety and Environmental Training (Table 1, page 4);
- Example of Training Required and recommended to be taken by job position series (Table 2, pages 5-6);
- Needs and Expected Competency for training (Table 3, pages 7-9);
- Training Available at GSFC on the subjects of Safety, Environmental Protection, Radiation Protection, Occupational Health, and Employee Assistance Program (Section 3, pages 2-3); and
- Course available through GSFC (Table 4, pages 10-18).

2. HOW TO USE THIS GUIDE

Instructions on how to develop Individualized Training Plan for each employee:

- 1) Use the Individualized Plan for Safety and Environmental Training, Table 1, page 4 as a worksheet.

- 1) Go to Needs and Expected Competency, Table 3 on pages 7-9. Go through the list, and note, which needs and competencies are necessary to perform the job, look up the corresponding course where offered and write course titles down on Individualized Training Plan. The first seven courses which are designed for all employees have already been written in.
- 1) Then go to the Table 4 on pages 10-18, that has the selected courses to confirm course content and how to obtain the training.
- 1) Where a course is not offered at GSFC, call code 114, the Human Resources Office for assistance.

For samples of how to complete the Individualized Training Plan, see Example of Training Courses by Occupation Group / Position Series, Table 2, page 5-6. These are examples of typical training courses that an employee would be expected to take.

For instance, an Office Worker would be required to take the Hazard Communication Standard training course and General Safety and Environment, and is encouraged to take training in, Fire Extinguishers Training, Slip, Trip, and Fall Prevention, Ergonomics and First Aid / CPR.

An Engineer or Maintenance Worker who would regularly work with hazardous conditions would be required to take the six basic required courses as above. Depending on where they worked, and what hazards they are potential exposed to, they should also take training in RCRA Generator Training (Hazard Waste), Respiratory Protection, Hearing Protection, Chemical Hygiene Plan, and Lockout / Tagout as they applied to hazards in the field and determined by the Job Hazard Analysis

3. TRAINING AVAILABLE AT GSFC FOR SAFETY, ENVIRONMENTAL, RADIATION PROTECTION, OCCUPATIONAL HEALTH, AND EMPLOYEE ASSISTANCE

Below is a list of resources available on center to meet some of the needs of Goddard Supervisors. The Safety and Environmental Branch also has a large number of videos, which are available for checkout, and may be helpful in meeting training requirements.

- 1) Available through the Human Resource Development Office (*FY99 Annual Calendar of On-Site Training*, Contact: Nichole Richmond at 286-5757):
 - Base Risk Management and Safety Practice
 - Confined Space Entry
 - Cryogenic Liquid and Compress Gas Safety
 - Electrical Safety Standards
 - Emergency Life Support Apparatus (ELSA) Training
 - Ergonomics
 - Explosive Handlers
 - Explosive Safety Program Management

Available through Human Resource Development Office (continued)

- Facility System Safety
- Fall Protection
- Fire Extinguisher Training
- Infant- Child Care CPR Course
- Laboratory Safety for Chemical Hygiene Officers
- Mort-Based Mishap Investigation Refresher
- Scaffolds Safety
- Standard First Aid/CPR
- Taking Care of Yourself through Life Balancing

2) Available through the Learning Center (*Learning Center Catalog 1999/2000*): contact the GSFC Learning Center at 286-3331 information on to take training:

- Air Facts
- Compressed Gases, Safety Aspects in
- Confined Space Hazards
- CRP: The Way to Save Lives
- *Fall Prevention, High-Impact*
- Fire Extinguisher: Fight or Flight
- First Aid Standard
- Fleet Owner Video Training Series
- Hazard Communication
- Health, Safety and Environmental Training Solutions
- Keeping F-I-T while At Your Computer
- Laser Safety
- Managing Stress
- Mishap Investigation Board Refresher
- Oxyacetylene Safety
- Product Safety and Design: Strategies for Managing Liability
- Safety Awareness, High-Impact
- Smoking, How To Stop

3) Available through Code 205.2:

Environmental Management

- Integrated Contingency Plan and Stormwater Pollution Prevention Plan (Contact: Safety and Environmental Branch at 286-6295)
- RCRA Annual Training (Contact: Safety and Environmental Branch at 286-6295)

Industrial Hygiene (Contact: Industrial Hygiene at 286-6669)

- Respiratory Protection
- Hearing Conservation
- Ergonomics

Radiation Protection (Contact: Radiation Safety Officer at 286-9157)

- Basic Ionizing Radiation Safety Training

Available through Code 205.2 (continued)

Employee Assistance Program (Courses: (1 to 2 hours) Contact: EAP at 286-6666)

- Supervisory Briefing
- Sexual Harassment Awareness and Prevention
- Violence in the Workplace: Awareness and Prevention

Seminars: informal target to smaller groups

- Assertiveness Training
- Demanding Boss
- Dealing with Difficult People
- Depression
- Navigating Change
- Understanding the Impact of Gender in the Workplace / Gender Communication
- Holiday Blues
- Procrastination
- Improving Your Self-Esteem
- How to Enjoy Your Vacation
- Substance Abuse and Educational Workshop

Other Topics are available, call for special requests.

1) Available through Circuit TV Channel 19

See the Safety and Environmental web site:

<http://gsfc-aphrodite.gsfc.nasa.gov/205/SESOhOME.htm> or channel 19 for most current menu of times and program information) These courses are given at several times each week and are available for first, second and third shift viewing:

- Hazard Communication Standard,
- Fire Extinguisher Use (Refresher)
- General Personal Protective Equipment
- Safety Shorts – 5 minute training videos (See TV Listing Menus for Current Titles)

Table 1: Individualized Plan for Safety and Environmental Training










Name: _____

Title: _____

Supervisor: _____

Code: _____

Branch Name: _____

Course Title  Required Training  Highly Recommended Training	Training Provider	Location Where Taken	-When Taken, -Does this require annual refresher
Hazard Communication 	Goddard TV	Goddard	
General Safety & Environmental 	Safety Environmental Branch	Goddard	
Fire Extinguisher Training 	Maryland Consultants	Goddard	
Ergonomics 	Occu-Health Inc.	Goddard	
Slip Trip, and Fall Prevention 			
First Aid / CPR/ 			
Blood Borne Pathogen 			

**Table 2: Examples of Training Courses to Take by an Occupation Group / Position Series
As Part of Individualized Training Plan**

Occupation Group & Position Series	Required Training Highly Recommended Training	Frequency Course Should Be Taken
<u>Office and Housekeeping</u> General Administration Secretary Financial Administration Cafeteria Worker Housekeeping Personnel Education and Training Mathematics Public Affairs Statistician	<ul style="list-style-type: none"> ➤ Hazard Communication Standard ➤ General Safety and Environmental ➤ Fire Extinguisher Training ➤ Fire Extinguisher Refresher ➤ Ergonomics ➤ Slip, Trip, and Fall Prevention ➤ First Aid / CPR 	Once Once Once Annually Once Once Annually
<u>Engineering</u> Aerospace Engineer Chemical Engineer Computer Engineer Electronics Engineer Electronics Technician Engineering Technician General Engineers Quality Assurance Safety Engineer	<ul style="list-style-type: none"> ➤ Hazard Communication Standard ➤ General Safety and Environmental ➤ Fire Extinguisher Training ➤ Fire Extinguisher Refresher ➤ Ergonomics ➤ Slip, Trip, and Fall Prevention ➤ First Aid / CPR <p><i>Additional courses for consideration based on position:</i></p> <ul style="list-style-type: none"> ➤ RCRA Generator Training ➤ Respiratory Protection ➤ Hearing Protection ➤ Lockout/Tagout 	Once Once Once Annually Once Once Annually Annually Annually Annually 4 years
<u>Physical Sciences</u> Astronomy and Space Science Chemist General Physical Science Geophysics Meteorology Oceanography Physics	<ul style="list-style-type: none"> ➤ Hazard Communication Standard ➤ General Safety and Environmental ➤ Fire Extinguisher and Fire Safety ➤ Fire Extinguisher Refresher ➤ Ergonomics ➤ Slip, Trip, and Fall Prevention ➤ First Aid / CPR <p><i>Additional courses for consideration based on job hazard analysis:</i></p> <ul style="list-style-type: none"> ➤ RCRA Generator Training ➤ Respiratory Protection ➤ Hearing Protection ➤ Lockout/Tagout 	Once Once Once Annually Once Once Annually Annually Annually Annually 4 years (Rec.)

Table 2: Examples of Training Courses to Take by Position Series as Part of Individual Training Plan (continued)











Occupation Group & Position Series	 Required Training  Highly Recommended Training	Frequency Course Should Be Taken
<u>Facilities and Equipment Maintenance</u> Auto Repair Boiler Maintenance Boiler Plant Operation Carpenter Electrician Electronic Equipment Equipment Specialist Facility Management General Equipment Mechanic Industrial Equipment Maintenance Painter Plumber Sheet Metal Mechanic Tradesperson Transportation Group Warehouse Workers Welder	<ul style="list-style-type: none"> ➤ Hazard Communication Standard  ➤ General Safety and Environmental  ➤ Fire Extinguisher and Fire Safety  ➤ Fire Extinguisher Refresher  ➤ First Aid / CPR  ➤ Fire Extinguisher Training  ➤ Ergonomics  ➤ Slip, Trip, and Fall Prevention  <p><i>Additional courses for consideration based on job hazard analysis:</i></p> <ul style="list-style-type: none"> ➤ RCRA Generator Training ➤ Integrated Contingency Plan and Storm Water Pollution Prevention Plan ➤ Hearing Protection ➤ Respiratory Protection ➤ Lockout/Tagout 	Once Once Once Annually Annually Annually Once Once Annually Annually Annually Annually 4 years (Rec.)

Table 3: Needs and Expected Competency for Training

Needs	Competency After Training	Turn to Page
Required by all persons at GSFC. How to avoid unnecessary expose to chemicals in industrial, manufacturing, and laboratory setting OSHA 29 CFR 1910.1200	Knowledge of chemical hazards on center and how to use MSDS.	Hazard Communication Standard, pg. 13
Required by all persons at GSFC. To obtain greater awareness for general safety and environmental issues	Knowledge of safety and environmental issues on Center, and what additional training one should obtain	General Safety and Environmental, pg. 13
If you work in an area where a fire could break out and are expected to respond to a fire. OSHA 29 CFR 1910.157	Knowledge of what to do in case of a fire and how to use a fire extinguisher	Fire Extinguisher Training, pg. 12
If you wish to avoid back injuries, wrist injuries and injuries due to repetitive motions at your workstation.	Ability to properly set-up workstations, and work without injuring oneself	Ergonomics, pg. 12
To learn how to prevent simple falls, slips, and trips which could lead to you being injured.	Knowledge of how to work safety and avoiding common accidents	Slip, Trip, and Fall Prevention, pg. 17
To provide medical assistance to co-worker in an emergency basis until medical help arrives.	Knowledge of how to perform First Aid and Cardiopulmonary resuscitation (CPR)	First Aid / CPR, pg. 12
If you work in a noisy area (85 decibels or greater), examples are boiler rooms, chiller rooms, and some mechanical rooms. OHSAA 29 CFR 1910.95 (k)	Understand the effects of noise on hearing, types of hearing loss, advantages and disadvantages of different types of hearing protection, and the need for annual audiograms.	Hearing Protection, pg. 14
If you work with dangerous chemicals which if improperly handled could harm the people or the environment EPA 40 CFR 262.34.	Ability to use and dispose of chemicals in an environmentally sound manner	RCRA Generators Training, pg. 16
Know what to do if there is a spill of petroleum or hazardous material in outside areas. EPA 40 CFR 112.7 (e) (10)	Ability to work with oil and other chemicals products in an environmentally sound manner to prevent the pollution of surface water runoff.	Integrated Contingency Plan (ICP) and Storm Water Pollution Prevention Plan (SWP3), pg. 14

Needs	Competency After Training	Turn to Page
Know how to protect yourself if you have the potential to be breathing harmful chemicals (for 30 or more days a year). OHSa 29 CFR 1910.134(e)(5)(L)	Knowledge of the types of respiratory hazards, purpose of respirators; know the different types of respiratory protective equipment available, responsibilities of respirator wearers, and special hazards and conditions.	Respiratory Protection, pg. 16
If you are a Chemical Hygiene Representative, or work in a laboratory, where hazardous chemicals are used. OSHA 29 CFR 1910.1450	Ability to understand and implement chemical hygiene plan to reduce chemical hazards in the laboratory.	Chemical Hygiene Plan, pg. 11
If you work in Permit Required Confined Space or perform Sewer Repair. OSHA 29 CFR 1910.146	Ability to enter and work safely in a confined area.	Confined Space Entry, pg. 11
If you handle explosives or use explosive devices. OSHA 29 1910.109	Ability to safely pack, ship, handle, and store small explosive devices.	Explosive Handler's Training, pg. 12
If you use a forklift. OSHA 29 CFR 1910.178(L)	Awareness of forklift hazards, including inspections and maintenance, safe driving, stacking and tiering, refueling, special operating rules, and emergency procedures.	Forklift Safety, pg. 13
If you are an Electrician, or repair Electronic Equipment. OSHA 29 1910.332	Knowledge of electrical standards and hazards associated with electrical installations and equipment.	Electrical Safety, pg. 11
If you are an Electrician, or repair Electronic Equipment.	Knowledge of how to perform First Aid and Cardiopulmonary resuscitation (CPR)	First Aid / CPR, pg. 12; & Bloodborne Pathogens, 10
If you work with high-energy sources, including, Electricity, Vacuum and Water. OSHA 29 CFR 1910.147	Ability to understand and use standards and requirements necessary for the control of hazardous energy through lockout/tagout.	Lockout/Tagout , pg. 15
If you work in exposed area, which is more than four feet above the ground, and therefore have the possible of falling. OHSa 29 CFR 1926.503 (a)	Ability to understand requirements for fall protection and apply knowledge of these systems to prevent falls.	Fall Protection, pg. 12

Needs	Competency After Training	Turn to Page
If you use radioactive materials or sources, or you are a Radioactive Material Custodian. GSFC GPG 1860.1 NRC 10 CFR 33.13 (c) (ii)	Ability to obtain, handle, transfer, and dispose of radioactive material in a safe manner.	Basic Ionizing Radiation Safety, pg. 10
If you work around radioactive material, but do not use radioactive material. GSFC GPG 1860.1 10 CFR 20	Ability to be work safety in area where radioactive material or radiation can be found.	Radiation Training for Ancillary Personnel, pg. 16
If you Radiation Safety Officer or Custodian of Type III materials, for example user high-powered x-ray equipment, accelerators, and radioactive isotope in thousands of Curie amounts. GSFC GPG 1860.1 29 CFR 1910.96d	Ability to manager a radioactive source or generator of ionizing radiation in compliance the requirement of NRC and NASA. Able to provide guidance and training with worker of ionization radiation.	Advanced Ionizing Radiation Safety, pg. 10
If you need to protect your eye and skin and use Class 3b or Class 4 lasers - required , or Class 2 or Class 3a lasers - recommended . GSFC GPG 1860.3 29 CFR 1926.54	Ability to handle lasers in a safe matter so as to avoid damage to the eyes or skin of a co-worker or yourself.	Laser Safety Training, pg. 14
If you work on Scaffolding. OSHA 29 CFR 1910.28 and 29 CFR 1926.451	Knowledge of: standards, duties of competent person, design and safety factors, terminology and inspection of scaffold components, fall protection requirements, signs and barricades.	Scaffolding Safety, pg. 16
If you work on piping or other materials which could exposure you to Asbestos. OSHA 29 CFR 1910.1001 (I) (7)	Ability to identify asbestos, understand the hazards/risks based upon exposure, understand the health effects of asbestos exposure, know where asbestos is found in buildings, recognize damaged or deteriorated sources, and what to do to minimize exposure	Asbestos Awareness, pg. 10
If you are an inspector at a construction sites. OSHA 29 CFR 1926.20	Ability to conduct construction inspections including awareness of construction standards and construction health hazards.	OSHA 200 Construction Safety Standards, pg. 15

Needs	Competency After Training	Turn to Page
If you use worker using heavy equipment or other equipment where personal injury is possible. OSHA 29 1910.211-. 222 (known as Subpart O).	Knowledge of requirements for machinery and machine guarding	Machine Safeguards, pg. 15
If you are part of the Goddard Response Emergency Team (GERT) or work with Hazardous Waste. OSHA 29 1910.120	Ability to implement the GSFC emergency response plan. Knowledge of how to use proper chemical personal protective equipment. Ability to perform advanced control, containment and confinement. Understanding and ability to implement decontamination procedures.	Hazwoper Training, pg. 13
If work with, or work in the area of an overhead crane. OSHA 29 CFR 1910.179	Ability to use overhead cranes, gantry cranes, and hoists in a safe manner.	Overhead Cranes and Material Handling, pg. 15

Table 4: Course Descriptions

Course Name & Description	Target Audience & Registration Information
Key: Course is offered by the following group: S&EB - Safety and Environmental Branch Off Center – must be obtained by outside source LC – GSFC Learning Center GSFC – Code 114 Human Resources NSTC – NASA Safety Training Center	
1) Advanced Ionizing Radiation Safety (Off Center) Fulfill the requirement for GSFC's Nuclear Regulatory license. Topic include of Basic Ionizing Radiation Safety, and the following topics: Radiation interaction with matter, Advanced radiation mathematics, dose rate measurements, radiation hazard zone determination, neutron detection and measurement, x-ray producing devices and exposure control, accelerator operation and safety considerations, detailed NRC license review, ion chamber theory and scintillation counters. GSFC GPG 1860.1 & 29 CFR 1910.96d	Target Audience: Radiation Safety Officers, Custodians of Type III material or devices. Example user high-powered x-ray equipment, accelerators, and radioactive isotopes in thousands of Curie amounts. This course is provided via a commercial training provider. For further information, call Tad Blanchard at 286-9157.
2) Asbestos Awareness (Off Center) Meets the training requirement for OSHA 29 CFR 1910.1001 (I) (7). Topics provide an understanding the health effects of asbestos exposure, discuss where asbestos is found in buildings, describe how to recognize damaged or deteriorated sources, and discuss what to do to minimize exposure.	Target Audience: Supervisors, operators, and maintenance staff who work with and around piping and building material where exposure is possible.
3) Basic Ionizing Radiation Safety (S&EB) This Course meets training requirement for 10 CFR 33.13 (c) (ii) and GPG 1860.1. Participants will be introduced to GSFC policies, fundamental concepts of radiation physics and radiobiology, and radiation safety procedures and regulations.	Target Audience: All radiation workers using licensed material. Length of Training: 3 hour —1 session Schedule: 1 st and 3 rd Wednesday of each month For further information, call Tad Blanchard at 286-9157.

Course Name & Description	Target Audience & Registration Information
<p>4) Bloodborne Pathogens (GSFC) This course meets training requirements for 29 CFR 1910.1030 and is to be taken in conjunction with First Aid / CPR. This course requires an annual refresher. Topics include how to use Universal precautions, when and how to use personal protection equipment, availability of Hepatitis B vaccination and what to do in a case of exposure.</p>	<p>Target Audience: Trained First Aid Responders Staff needing this training is when give First Aid/ CPR and others where electrical hazards are commonly found.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>5) Boiler Safety (Off Center) Meets requirements for OSHA 29 1910.106</p>	<p>Target Audience: Supervisors, operators, and maintenance staff who work with and around the steam generating system.</p>
<p>6) Chemical Hygiene Plan (Laboratory Safety for Chemical Hygiene Officers) (GSFC) Meets training requirements for OSHA 29 CFR 1910.1450. This course is for employees in laboratory settings. Topics include developing and maintaining a Chemical Hygiene Plan for the laboratory. Knowing the methods used to detect the presence of release of hazardous chemicals. Understanding the physical and health hazards of chemicals in the work area, including the use and understanding of MSDS. Understanding the measures employee can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.</p>	<p>Target Audience: Laboratory employees who handle chemicals on a regular basis, and are exposed to the hazards from these chemicals.</p> <p>Length of Training: 8 hours—1 session Submission Deadline: Two weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>7) Confined Space Entry (NSTC) This course meets the training requirements for OSHA 29 CFR 1910.146 for entry operation at both the entrant and attendant levels.</p>	<p>Target Audience: Safety personnel and employees supervising confined space entry operation. Length of Training: 8 hours—1 session Submission Deadline: Two weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>

Course Name & Description	Target Audience & Registration Information
<p>8) Cryogenic Liquid and Compressed Gas Safety (LC) This course provides instruction on the safe handling, storage, use transportation, and disposal of compressed gases and cryogenic liquids.</p>	<p>Target Audience: technicians, engineers, and supervisors who work with or around cryogenic liquid and compresses gases. Length of Training: 6 hours—1 session Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>9) Electrical Safety (NSTC) Meets the requirements for OSHA 29 1910.332. Topics include single- and three- phase systems, cord- and plug-connected and fixed equipment, grounding, ground fault circuit interrupters, hazardous locations, and safety-related work practices.</p>	<p>Target Audience: Supervisors, electrical and electronic engineers, electrical and electronic technicians, electricians and other staff working with or around electrical systems. Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>10) Ergonomics (S&EB) Provides an overview of Ergonomics. Participants will learn how to properly set-up their workstations to prevent long-term musculoskeletal symptoms of numbness, tingling or pain in the hand, wrist, elbow, shoulder, or neck. (Proposed OSHA 29 CFR 1910.500)</p>	<p>Target Audience: Staff whom regularly type, or work a position where certain motions are regular or repetitive. Length of Training: 3 hour —1 session Scheduled upon request.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>11) Explosive Handler's Training (NSTC) Meets the requirements for OSHA 29 1910.109. Topics include basic knowledge of safe practices for handling small explosive devices, packing, shipping, handling and storage.</p>	<p>Target Audience: Supervisors, and workers using explosive materials, propellants, and blasting agents. Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>12) Explosive Safety Program Management (NSTC) Meets requirement for OSHA 29 1910.109. This course address the requirements and needs of NASA explosives safety programs and their management</p>	<p>Target Audience: Supervisory personnel managing the storage and handling of explosive devices, safety, reliability, quality, and maintainability professions. Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>

Course Name & Description	Target Audience & Registration Information
13) Fall Protection (NSTC) Meets 29 CFR 1926.503 (a). Course will include an overview of the subject, an in-class exercise to produce familiarity with requirements, demonstration of hardware, and discussion of fall protection planning	Target Audience: Those who supervise or have safety oversight / inspection responsibilities for operation in elevated environments where fall protection is required. Submission Deadline: Four weeks before course start date. For further information, call Nichole Richmond at 286-5757.
14) Fire Extinguisher Training (GSFC) Meets the requirements for OSHA 29 CFR 1910.157 Course covers the general principles of portable fire extinguishers.	Target Audience: Supervisors and anyone interested in learning how to extinguish various types of fires. Submission Deadline: Two weeks before course start date. For further information, call Nichole Richmond at 286-5757.
15) First Aid / CPR This course is to be taken in conjunction with Bloodborne Pathogens training. This course shows techniques to provide first aid and cardiopulmonary resuscitation (CPR). Will learn how to keep situation calm. How to help keep injuries from becoming worse until emergency medical assistance arrives. How to make decisions and take appropriate steps to keep patient alive.	Target Audience: All staff on Center. Staff most needing this training is electricians and others where electrical hazards are commonly found. Length of Training – 8 hours – 1 session Offered several times though-out the year For further information, call Nichole Richmond at 286-5757.
16) Forklift Safety (NSTC) Meets the training requirement for OSHA 29 CFR 1910.178(L) Topics include the mechanics of a fork truck, inspection and maintenance, safe driving and traffic rules, special operating rules, stacking and tiering, emergency procedures and refueling. Discussions include the awareness of hazards and how to gain from lessons learned.	Target Audience: Supervisors over forklift operations, forklift operators, safety personnel Length of Training: 3 hours – 1 session Submission Deadline: Four weeks before course start date. For further information, call Nichole Richmond at 286-5757.
17) General Safety and Environmental (GSFC) Would include Hazard Communication Standard Training. Other topics: general environmental awareness, pollution prevention, and general safety awareness.	Target Audience: All employee and onsite contractors would be required to take this training. Length of Training: 1 hour Proposed course would be offered once each week.

Course Name & Description	Target Audience & Registration Information
<p>18) Hand and Portable Power Tools (Off Center) Meets requirements for OSHA 29 1910.241-246 (known as Subpart P). Topics include giving examples of equipment and tool uses, defining the responsibilities of employer and user, identifying potential safety hazards associated with hand and portable power tools, and understanding proper tool selection and use.</p>	<p>Target Audience: Supervisors and users of hand-held and portable power tools, in shop and around center, including air and explosive-actuated tools.</p>
<p>19) Hazardous Chemical Communication Program (Off Center) This course would be an expansion of the Hazard Communication Standard</p>	<p>Target Audience: Workers in operations that involve the use of hazardous chemicals.</p>
<p>20) Hazard Communication Standard (S&EB) This course meets training requirements for OSHA 29 CFR 1910.1200</p>	<p>Target Audience: All staff on Center. Additional training is to be given at change of assignment, and whenever a new hazard is introduced into the employee's work area. Available on Goddard closed circuit TV Channel 19</p>
<p>21) Hazwoper Training (Off Center) This meets the requirements for OSHA 29 1910.120. Course topics include implement the emergency response plan. Understanding hazard and risk assessment techniques. Knowing the classification, identification and verification of known and unknown material by using field survey instruments and equipment. Perform advance control, containment, and confinement operations.</p>	<p>Target Audience: Individuals who need to respond to releases or potential releases of hazardous materials.</p>
<p>22) Hearing Protection (S&EB) Meets requirements for 29 CFR 1910.95 (k) Provides an overview of hearing protection. The course includes a discussion of sound and sound characteristics, the ear and hearing, types of hearing, the effects of noise on hearing, types of hearing loss, NASA and OSHA noise exposure limits, hearing protection characteristics, types of hearing protection, hearing protection attenuation rates, advantages and disadvantages of different types of hearing protection, and annual audiograms.</p>	<p>Target Audience: Supervisors and their employees who work around heavy machinery or other loud equipment. The Industrial Hygiene Office should be called to conduct an evaluation to determine if an employee is exposed to noise at or above an 8-hour time weighted average of 85 decibels. Examples of typical 85-decibel noise are a dump truck or inside a boiler room. Length of Training: 1.5 hours Offered several times a year.</p> <p>For further information, call Industrial Hygiene at 286-6669.</p>

Course Name & Description	Target Audience & Registration Information
<p>23) Integrated Contingency Plan (ICP) and Storm Water Pollution Prevention Plan (SWP3) (S&EB)</p> <p>This ICP/SWP3 course addresses each element of the ICP and SWP3, including how and why tasks are to be implemented. Training topics include:</p> <p>Introduction to the regulations and permit process.</p> <p>The ICP/SWP3 goals and components of each</p> <p>Implementation of the ICP and SWP3 at the activity level.</p> <p>Role of activity coordinators.</p> <p>BMP's including good housekeeping, preventive maintenance, visual inspections, spill response and control, record keeping, and reporting, Work Instructions (WI's) Emergency response and notification.</p> <p>EPA 40 CFR 112.7 (e) (10)</p>	<p>Target Audience: Supervisors and individuals involved in oil operations , emergency console operations and those individuals including, the activity coordinators, involved in the following SWP3 activities:</p> <p>Landfills A1, A2, B, and C</p> <p>Fire Extinguisher Training Area (Landfill C)</p> <p>Vehicle Maintenance Facility (Building 27)</p> <p>Hazardous Waste Accumulation (Building 27A)</p> <p>Area 200 (Optical Research Facility)</p> <p>Area 400 (Propulsion Research Facility)</p> <p>Main Warehouse (Building 16W)</p> <p>Auto Club (Building 95)</p> <p>Central Heating and Cooling Plant (Building 24)</p> <p>Landscaping Facility (Building 81)</p> <p>Salt Igloos (Building 27D)</p> <p>Length of Training: 1 hour</p> <p>Spring of each year, additional offering may be available.</p> <p>For further information, call Sallie Padgett on 286-8353.</p>
<p>24) Laser Safety Training (Off Center)</p> <p>Meets the requirements for GSFC GPG 1860.3 and 29 CFR 1926.54</p> <p>Topics to be included in course are</p> <p>Fundamentals of laser operation, physical principles and construction. Bioeffects of laser radiation on the eye and skin. Relations of specular and diffuse reflections. Nonradiation hazards of lasers electrical, chemical, reactions by products. Ionizing radiation hazards x-rays from power sources and target interactions when applicable when applicable. Laser and laser system classifications. Control measures. Overall management and employee responsibilities.</p>	<p>Target Audience: Supervisors and users of Class 3b and Class 4 lasers are required to take this training. Supervisors and users of Class 2 and Class 3a are recommended to take this training.</p> <p>For further information, call Phillip Nessler at 286-4693.</p>
<p>25) Lockout/Tagout (NSTC)</p> <p>Meets the training requirements for OSHA 29 CFR 1910.147. Provides employees with standards, procedures, and the requirements necessary for the control of hazardous energy through lockout and tagout using energy-isolating devices.</p>	<p>Target Audience: Supervisors and craftsman in servicing and maintenance. Safety professionals.</p> <p>Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>

Course Name & Description	Target Audience & Registration Information
26) Machine Safeguards (Off Center) Meets requirements for OSHA 29 1910.211-. 222 (known as Subpart O). Topics will include knowing the hazards of machinery, describing methods of machine safeguarding, and insuring guarding on machinery.	Target Audience: Supervisors and users of machinery where nip points, rotating gearing, flying chips and sparks could cause bodily harm.
27) Manager's Safety (NSTC) Meets requirements for OSHA 29 CFR 1910 and OSHA 29 CFR 1960, Safety and Health Program for Federal employees. Course is designed to provide an introduction to workplace safety requirements for line managers. Topics include safety laws and standards, NASA policies, employee and employer rights and responsibilities, mishap prevention and mishap investigation.	Target Audience: Mid-level and working-level line managers.
28) OSHA 200 Construction Safety Standards (NSTC) Meets requirements for OSHA 29 CFR 1926.20. This course assists managers to effectively conducting construction inspections. Participants are provided with basic information about construction standards, construction hazards and control, health hazards, trenching and excavation operation, cranes, electrical hazards in construction, steel erection, ladders scaffolds, concrete, and heavy construction equipment.	Target Audience: Construction Managers and Site Inspectors.
29) Overhead Cranes and Material Handling (NSTC) Meets requirements for OSHA 29 CFR 1910.179. Course promotes crane safety and awareness. Students are provided with basic information concerning crane safety, crane operation, crane inspection and maintenance, pre-lift plans, wire rope, rigging components, and rigging safety.	Target Audience: Crane Operators, Crane Site Supervisors, others involved with cranes and material handling.

Course Name & Description	Target Audience & Registration Information
<p>30) Radiation Training for Ancillary Personnel (S&EB) Meets training of GSFC GPG 1860.1 & NRC 10 CFR 20 Topics include being familiar with the types of radioactive materials or radiation to be used, stored, or transferred in the area. To be familiar with health problems associated with exposure to the radioactive material in the area. Know how to minimize exposure to the radioactive materials or radiation fields. Know what to do if an alarm sounds in the area. Be informed of the availability of personal monitoring devices.</p>	<p>Target Audience: Ancillary personnel are any persons who have unrestricted access to areas where radioactive materials are stored or used, and include any persons involved in maintenance, janitorial, etc. duties in radiation areas.</p> <p>Length of Training: Briefing given by custodian of source.</p> <p>For further information, call Tad Blanchard at 286-9157.</p>
<p>31) RCRA Generators Training (S&EB) Meets training requirements of EPA's 40 CFR 262.34. Topics include overview of regulations, pollution prevention, controlling hazardous waste, GSFC policy, and requirements for generators on daily basis and what to do in an emergency situation.</p>	<p>Target Audience: Supervisors and generators of hazardous waste and Satellite Accumulation Area Point-of-contact personnel.</p> <p>Length of Training: 1 1/2 hour Summer and Winter of each year.</p> <p>For further information, call Hazardous Waste Manager at 286-9233.</p>
<p>32) Respiratory Protection (S&EB) Meeting training requirements for 29 CFR 1910.134 (e) (5) (L) Provides an overview of Respiratory Protection Program. Includes purpose of respirators, the types of respiratory hazards, the different types of respiratory protective equipment available and the differences between them. Discusses the responsibilities of respirator wearers, inspection and seal checking of a respirator, air purifying cartridges and cartridge replacement, signs and symptoms of a malfunctioning respirator, and special hazards and conditions.</p>	<p>Target Audience: Supervisors and their employees who are exposed to vapors and particulate matter. First defense is engineering controls, personal respiratory protection should be offered where engineering controls can not bring hazards below an acceptable limit.</p> <p>Length of Training: 1.5 hours</p> <p>For further information, call Industrial Hygiene at 286-6669.</p>

Course Name & Description	Target Audience & Registration Information
<p>33) Scaffolding Safety (NSTC) Meets the training requirement for OSHA 29 CFR 1910.28 and 29 CFR 1926.451, requirements for scaffolding safety in the general and construction industries.</p>	<p>Target Audience: Anyone working on operations requiring the use of scaffolds. Supervisors of construction and other work which uses scaffolds. Safety, Reliability, Quality, and Maintainability Professionals.</p> <p>Length of Training: 3 days Submission Deadline: Four weeks before course start date.</p> <p>For further information, call Nichole Richmond at 286-5757.</p>
<p>34) Senior Manager's Safety (NSTC) Meets requirements for OSHA 29 CFR 1910 and OSHA 29 CFR 1960. A tool to make safety a priority at GSFC and emphasize the importance of senior management involvement in the success of safety, health and environmental programs.</p>	<p>Target audience: Mid-level and upper-level managers.</p>
<p>35) Sexual Harassment Awareness and Prevention (S&EB) The objective of this course is to define and prevent sexual harassment in the workplace through heightening individual awareness, encouraging individuals to examine their own behavior in a non-threatening way, and to differentiate between behaviors which are appropriate and those which are not. Will also discuss ways to discourage harassment, and how to recognize the consequences of ignoring an employee whose behavior could be considered harassment.</p>	<p>Target Audience: Supervisors and managers who need to become more aware of interpersonal communication problems at work.</p> <p>Length of Training: 1.5 to 2.0 hours Offered several times a year.</p> <p>For more information, call Christina Kominoth or Angela Pittman at Employee Assistance Program/COPE at 286-4600.</p>
<p>36) Slip, Trip, and Fall Prevention (GSFC) This recommended course for staff to prevent slips, trips and falls on walking and working surfaces, the most common accident at Goddard Space Flight Center.</p>	<p>Target Audience: Center-wide staff.</p>

Course Name & Description	Target Audience & Registration Information
<p>37) Supervisor's Briefing of EAP Services (S&EB)</p> <p>This course is designed to increase the supervisor's understanding and awareness of how employee issues and concerns can evolve into persistent performance problems. The course will identify the types of performance problems most troubling to supervisors and managers, and will explain the consultation services provided by the Employee Assistance Program and how to access these services.</p>	<p>Target Audience: Supervisors and managers who need to become more aware of interpersonal communication problems at work Length of Training: 1.5 to 2.0 hours Offered several times a year.</p> <p>For more information, call Christina Kominoth or Angela Pittman at Employee Assistance Program/COPE at 286-4600.</p>
<p>38) Violence in the Workplace: Awareness and Prevention (S&EB)</p> <p>The objective of this course is to assist organizations in engaging in preventive rather than reactive crisis management. Sub-objectives include: Create an awareness of the potential for workplace violence through discussion of how aggressive and violent situations arise. Recognize the early warning signs of a potentially violent situation. Become more aware of the stages of the crisis cycle. Develop strategies to mitigate threatening situations, and understand how to handle an incident that becomes violent including post- incident needs such as debriefing services.</p>	<p>Target Audience: Supervisors and managers who need to become more aware of interpersonal communication problems at work. Offered several times a year or on request.</p> <p>For more information, call Christina Kominoth or Angela Pittman at Employee Assistance Program/COPE at 286-4600.</p>
<p>39) Welding and Compressed Gases (Off Center)</p> <p>Meets the requirements for OSHA 29 1910.252-. 255 (known as Subpart Q). Topics include precautions concerning fire hazards during welding processes, compressed gas safety control measures and operation, health hazards associated with welding, control measures, mechanical ventilation and personal protective equipment for lungs and eyes.</p>	<p>Target Audience: Supervisors and users of arc and oxy-fuel welding equipment.</p>